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Coronavirus and the Value of Minority Interests in Private Businesses

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As the coronavirus pandemic unfolds, valuation analysts face the challenge of completing valuation engagements against a constantly changing economic backdrop. In this article, we will review what valuation analysts can know, can't know, and what to do when developing valuation conclusions for minority interests in private businesses in 2020.

Exhibit**9**

The Levels of Value

Having a very clear assignment definition is, as always, essential. It is impossible to develop a reasonable valuation conclusion without clearly specifying the level of value for the conclusion. This article addresses valuation conclusions at the marketable minority ("as-if-freely-traded") and nonmarketable minority levels of value. Developing conclusions of value at the control levels, whether financial or strategic, brings its own set of challenges. Tasks like measuring the fair value of reporting units for goodwill impairment are subject to additional accounting and regulatory guidance that is beyond the scope of this article.

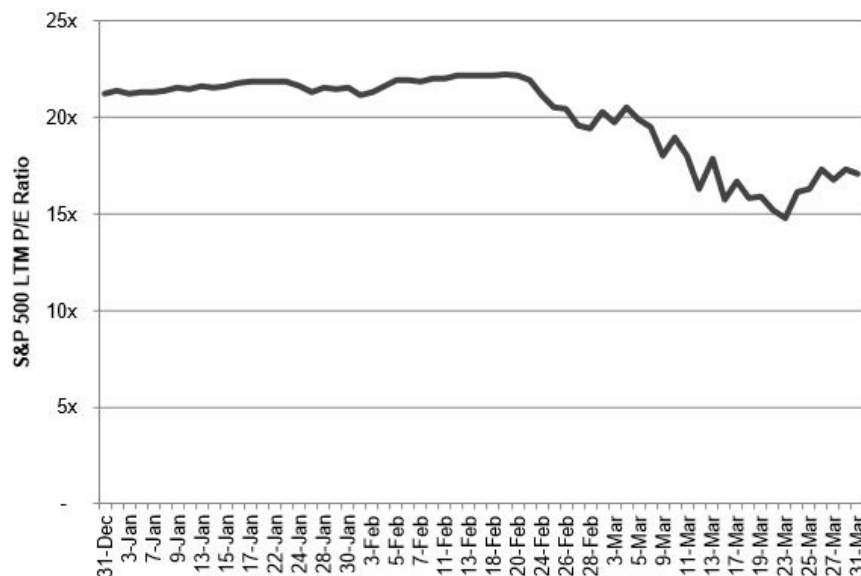
When the purpose of the valuation engagement is to determine the fair market value of a minority interest in a private business, such as for gift or estate tax compliance, the first step is to estimate the value of the subject business as if it were a public company. Analysts then apply a marketability discount to this base, as-if-freely-traded, value to derive the conclusion on a nonmarketable minority interest basis.

Interpreting Public Market Signals

From its February 19th peak, the S&P 500 fell 34% to its low, just over a month later, on March 23. From that low, the index rose 16% by the end of the quarter. Trailing earnings for the index changed little during the period. As shown in the following Exhibit 1, the falling stock prices corresponded to a reduction in the trailing earnings multiple from 22.3x to 17.1x.

Exhibit 1

Trailing P/E Ratio for S&P 500 during 1Q20



As shown in Exhibit 2, trailing earnings multiples reflect four factors, only one (the risk-free rate) of which is observable.

Exhibit 2**Components of Trailing P/E Multiples**

$$\frac{P_0}{E_0} = \frac{(1 + g_1)}{(R_f + ERP) - g_{2+}}$$

g_1 = Earnings Growth in Period 1

ERP = Equity Risk Premium

g_{2+} = Earnings Growth in Periods 2 and following

The trailing P/E multiple is inversely related to the risk-free rate. As measured by the yield on 20-year Treasuries, the risk-free rate fell from 1.86% at the mid-February market peak to 1.15% at March 31. So the 23% decrease in the S&P 500 multiple over that period has to be a function of some combination of three potential factors:

1. A decrease in expected earnings over the next year (as reflected in the growth rate g_1).
2. An increase in the equity risk premium (ERP).
3. A decrease in long-term earnings growth expectations (g_{2+}).

What valuation analysts know is that *trailing* earnings multiples have declined. What valuation analysts cannot know with precision is what combination of the three factors noted above contributed to the observed decrease in multiples. Valuation multiples are composite figures, and there is no reliable way to disentangle the ERP from the near-term and long-term growth estimates. Rather than focusing on one particular component of the P/E multiple, valuation analysts should evaluate the reasonableness of various potential combinations of components, as demonstrated in Exhibit 3 below.

Exhibit 3**Components of Trailing P/E Multiples**

February 19, 2020			March 31, 2020		
$22.3x = \frac{(1 + g_1)}{(1.86\% + ERP) - g_{2+}}$			$17.1x = \frac{(1 + g_1)}{(1.15\% + ERP) - g_{2+}}$		
Potential Combinations			Potential Combinations		
g_1	ERP	g_{2+}	g_1	ERP	g_{2+}
2.75%	5.50%	2.75%	2.75%	7.61%	2.75%
5.00%	5.50%	2.65%	0.76%	5.50%	0.76%
3.23%	6.00%	3.23%	-33.31%	5.50%	2.75%
2.27%	5.00%	2.27%	-46.14%	6.00%	4.00%

Exhibit 3 presents four potential combinations of ERP and growth expectations that correspond to the observed trailing P/E multiples at the market peak and at the end of the quarter. Mathematically, the number of potential combinations corresponding to any given multiple is unlimited. As a result, valuation analysts should focus on assessing the plausibility of different scenarios.

The four combinations presented under the February 19 header are equally plausible, and no amount of regression analysis or other data mining can definitively establish that one of them is more “correct” than any other. We can, however, determine that some proposed combinations are more plausible than others. For example, although the combination of short- and long-term growth expectations of 15% and an ERP of 18.3% does yield a trailing earnings multiple of 22.3x, that combination is not as plausible as those shown in Exhibit 3 because annual growth of 15% is not sustainable over the long-term.

In “normal” times, the range of plausible valuation inputs is relatively narrow. For example, analysts often have reasonable transparency with regard to earnings for the next period. Unfortunately, in times of upheaval and economic uncertainty, the range of plausible valuation inputs widens. In early March 2020, it is much harder to forecast 2020 earnings than it was to forecast 2019 earnings in March 2019. Shifting our attention to the right panel of Exhibit 3, one could ascribe the change in valuation multiples to a larger ERP, lower near- and long-term growth rates, or a significant near-term contraction in earnings.

Since valuation is ultimately a forward-looking exercise, analysts often prefer to examine multiples of forward earnings estimates for public companies. The resulting “forward” multiples already incorporate g_1 , so the number of unobservable variables shrinks from three to two. However, relying on forward earnings multiples is possible only when current estimates of forward earnings are available. As of the drafting of

this article, Wall Street analysts have generally not updated their earnings estimates, so forward multiples are currently “stale.”

For current (i.e., post-February 19, 2020) valuation dates, we offer the following roadmap to guide valuation analysts in developing conclusions of value, as summarized on Exhibit 4.

Exhibit 4
Covid-19 Valuation Roadmap

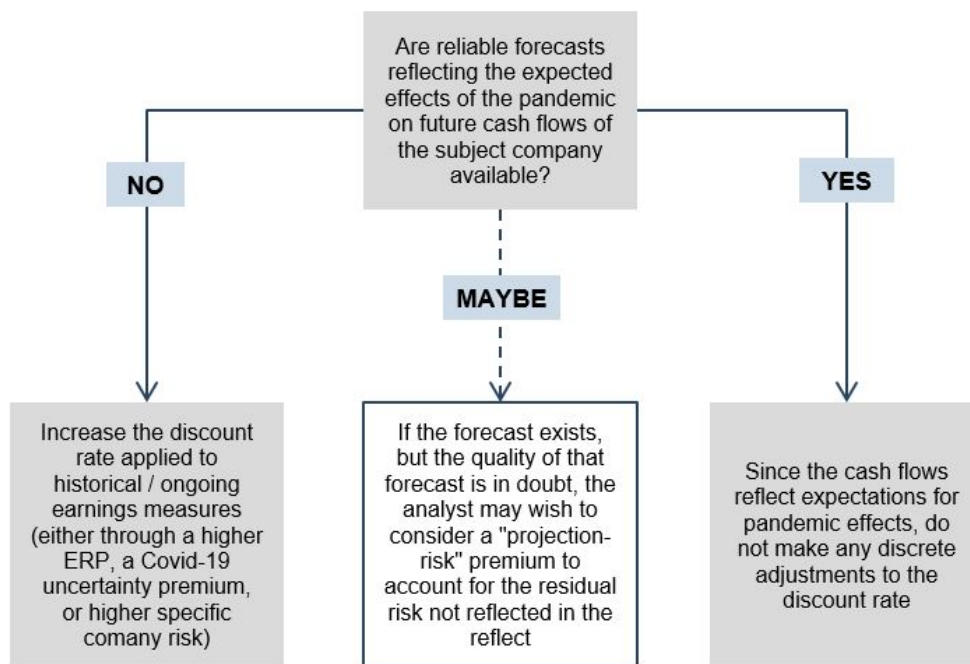


Exhibit 4 shows three potential valuation pathways. The right path for a given valuation situation will depend primarily on the availability of reliable pandemic-affected cash flow forecasts.

If no reliable forecast is available, then the valuation effects of the pandemic will need to be incorporated into the discount rate. While no one can quantify the appropriate increment with precision, we can observe that trailing earnings multiples have declined.

If a reliable forecast is available, then the valuation analyst should be careful not to double-count the effect of the pandemic by also adjusting the discount rate. The best way to guard against double-counting is to carefully assess the resulting conclusion of value relative to historical and forecast earnings, book value, or other relevant benchmarks.

We suspect that, in the near-term at least, it will be difficult to develop reliable cash flow forecasts. If forecasts are available, but it is not clear that the forecast fully captures the negative effect of the pandemic, then the valuation analyst may elect to apply a “projection-risk” premium. Quantifying such risk premiums is always a perilous exercise, and the analyst should be focused on not double-counting the pandemic effect. Analysts should evaluate relative value measures and available market benchmarks to determine whether the cash flow forecasts and discount rate are appropriate.

Regardless of which valuation path best fits a particular valuation assignment, valuation analysts should keep in mind that their task is to describe what fair market value is, not prescribe what value ought to be (i.e., intrinsic value). This should be a comforting reminder since it means that there are a lot of questions that valuation analysts don’t need to attempt to answer. For example, will the pandemic unleash a wave of deflation? Or will government stimulus efforts trigger inflation? Valuation analysts need not stake out positions on such questions. To do so is to venture beyond description and into prescription. Our job is much simpler because we need only describe how investors are, in fact, behaving. Even if you conclude that there are no public companies sufficiently comparable for use in the guideline public company method, you need to keep your eye on the behavior of public equity markets. They provide the best, and most transparent, evidence of investor sentiment at any valuation date.

Impact of Coronavirus on Marketability Discounts

Assuming that the effect of the coronavirus is adequately captured in the conclusion of value on a marketable minority interest basis, should there be any impact on the marketability discount applied?

Marketability discounts depend on four assumptions relating to the subject illiquid minority interest:

Expected holding period. From the perspective of a hypothetical willing buyer, has the onset of the pandemic changed the expected holding period for the subject interest? If the pandemic has made a near-term sale of the business more likely, the appropriate marketability discount may be smaller. If, instead, the pandemic has extended the period during which the interest is expected to remain illiquid, a larger marketability discount may be indicated.

Expected growth in value. How has the pandemic affected the expected capital appreciation over the anticipated holding period? If the discount rate used in the valuation of the business has increased, the resulting estimate of growth in value is likely higher as well, which may reduce the marketability discount. On the other hand, the crisis situation may increase the agency costs borne by minority investors, which could reduce the expected capital appreciation and increase the marketability discount.

Expected interim cash flows. How will the pandemic influence the subject company's ability or willingness to pay dividends to minority shareholders? If dividends are expected to be cut or suspended, the appropriate marketability discount may increase.

Required holding period return. How has the pandemic affected the return premium investors require for enduring illiquidity? Relative to returns on publicly-traded shares, an increasing premium for illiquidity would contribute to a higher marketability discount, while a lower illiquidity return premium would suggest a lower marketability discount.

As the preceding discussion demonstrates, calculating the marketability discount always depends on the specific attributes of the subject interest, and the coronavirus pandemic has not changed that. Valuation analysts need to carefully consider the factors above relative to the subject illiquid minority interest when estimating and supporting marketability discounts.

Conclusion

The onset of the coronavirus pandemic has increased the degree of difficulty for valuation analysts performing valuation engagements with effective dates after the middle of February 2020. However, the challenge is not insurmountable. Valuation analysts should pay close attention to the observable behavior of investors in the public equity markets, focus and describe how investors are behaving rather than attempting to prescribe how they should behave, and be careful not to double-count the effects of the pandemic in both cash flows and discount rates. The goal – as always – should be to identify a plausible set of assumptions that reflects observable markets at the valuation date.

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